



Glenn Research Center



Candle Flames in Microgravity



(a)



(b)



(c)



(d)

Shown here are the flame appearances at Earth's gravity and then at various reduced gravitational levels and times. Whether a candle flame can be sustained in quiescent air in microgravity is a longstanding question of interest to physics and chemistry students as well as combustion scientists.

(a) Earth gravity (1g)

(b) NASA GRC Zero Gravity Facility (5 seconds at <0.00001 g)

(c) NASA GRC Learjet test (20-25 seconds at <0.01 - 0.02 g)

(d) Space Shuttle (days at <0.00001 g)